

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

SEIKO EPSON CORPORATION,

No. C 06-06946 MHP

Plaintiff,

MEMORANDUM & ORDER

v.

CORETRONIC CORPORATION and
OPTOMA TECHNOLOGY, INC.,

**Re: Claim Construction Memorandum and
Order for United States Patent Nos.
6,739,831; 6,742,899; 6,203,158; and
6,558,004.**

Defendants.

On November 6, 2006 plaintiff Seiko Epson Corporation (“Seiko” or “plaintiff”) brought this action against Coretronic Corporation and Optoma Technology, Inc. (collectively “Coretronic” or “defendants”) alleging infringement of U.S. Patents Nos. 6,203,158 (“the ‘158 patent”), 6,402,324 (“the ‘324 patent”),¹ 6,527,392 (“the ‘392 patent”), 6,558,004 (“the ‘004 patent”) and 6,644,817 (“the ‘817 patent”). On November 27, 2006 defendants answered and counterclaimed. On March 21, 2007 Coretronic amended its answer and counterclaims to allege infringement of U.S. Patents Nos. 6,739,831 (“the ‘831 patent”) and 6,742,899 (“the ‘899 patent”). Now before the court are the parties’ claim construction briefs, filed pursuant to Patent Local Rule 4-5. Having considered the parties’ arguments and submissions, and for the reasons set forth below, the court construes the disputed terms as follows.

BACKGROUND

The patents-in-suit concern projectors. Projectors generally use a high-brightness light source inside a casing to generate light, and create images by modulating that light. High-brightness light sources, however, generate large amounts of heat. Accordingly, in projector design, it is vital to use systems and devices that properly cool the lamp and surrounding areas. The inventions

disclosed in the patents-in-suit provide improvements that cool projector devices effectively and efficiently while also enhancing their lifetime, performance and reliability. Each specific patent-in-suit is discussed in greater detail in the discussion section, alongside the claims to be construed from that patent.

LEGAL STANDARD

Under Markman v. Westview Instruments, Inc., 517 U.S. 370, 389–90 (1996), the court construes the scope and meaning of disputed patent claims as a matter of law. The first step of this analysis requires the court to consider the words of the claims. Teleflex, Inc. v. Ficosca N. Am., 299 F.3d 1313, 1324 (Fed. Cir. 2002). According to the Federal Circuit, the court must “indulge a ‘heavy presumption’ that a claim term carries its ordinary and customary meaning.” CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002). To determine the ordinary meaning of a disputed term, the court may review a variety of sources including the claims themselves, other intrinsic evidence such as the written description and prosecution history, and dictionaries and treatises. Teleflex, 299 F.3d at 1325. The court must conduct this inquiry not from the perspective of a lay observer, but rather “from the standpoint of a person of ordinary skill in the relevant art.” Id. (citing Zelinski v. Brunswick Corp., 185 F.3d 1311, 1316 (Fed. Cir. 1999)).

Among the sources of intrinsic evidence, the specification is “the single best guide to the meaning of a disputed term.” Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). By expressly defining terms in the specification, an inventor may “choose[] to be his or her own lexicographer,” thereby limiting the meaning of the disputed term to the definition provided in the specification. Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 990 (Fed. Cir. 1999). In addition, “[e]ven when guidance is not provided in explicit definitional format, ‘the specification may define claim terms ‘by implication’ such that the meaning may be ‘found in or ascertained by a reading of the patent documents.’” Irdeto Access, Inc. v. Echostar Satellite Corp., 383 F.3d 1295, 1300 (Fed. Cir. 2004) (quoting Bell Atl. Network Servs., Inc v. Covad Commc’ns Group, Inc., 262 F.3d 1258, 1268 (Fed. Cir. 2001)). “The specification may also assist in resolving ambiguity where the ordinary and accustomed meaning of the words used in the claims lack

1 sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” Teleflex,
2 299 F.3d at 1325. At the same time, the Federal Circuit has cautioned that the written description
3 “should never trump the clear meaning of the claim terms.” Comark Comms., Inc. v. Harris Corp.,
4 156 F.3d 1182, 1187 (Fed. Cir. 1998) (citations omitted); see also Tate Access Floors, Inc. v.
5 Maxess Techs., Inc., 222 F.3d 958, 966 (Fed. Cir. 2000) (“Although claims must be read in light of
6 the specification of which they are part, . . . it is improper to read limitations from the written
7 description into a claim . . .”).

8 Likewise, the prosecution history may demonstrate that the patentee intended to deviate from
9 a term’s ordinary and accustomed meaning. Teleflex, 299 F.3d at 1326. “Arguments and
10 amendments made during the prosecution of a patent application and other aspects of the
11 prosecution history, as well as the specification and other claims, must be examined to determine the
12 meaning of terms in the claims.” Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576
13 (Fed. Cir. 1995), cert. denied, 516 U.S. 987 (1995). “In particular, ‘the prosecution history (or file
14 wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been
15 disclaimed or disavowed during prosecution in order to obtain claim allowance.’” Teleflex, 299
16 F.3d at 1326 (quoting Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452 (Fed. Cir. 1985)).

17 Dictionary definitions and other objective reference materials available at the time that the
18 patent was issued may also provide evidence of the ordinary meaning of a claim. Phillips v. AWH
19 Corp., 415 F.3d 1303, 1322 (Fed. Cir. 2005) (en banc); Texas Digital Sys., Inc. v. Telegenix, Inc.,
20 308 F.3d 1193, 1202 (Fed. Cir. 2002). A dictionary “has the value of being an unbiased source,
21 accessible to the public in advance of litigation.” Phillips, 415 F.3d at 1322 (internal quotation
22 omitted). Thus, district courts “are free to consult such resources at any time in order to better
23 understand the underlying technology and may also rely on dictionary definitions when construing
24 claim terms, so long as the dictionary definition does not contradict any definition found in or
25 ascertained by a reading of the patent documents.” Vitronics, 90 F.3d at 1584 n.6. A court should
26 be cautious, however, not to place too much reliance on dictionaries, as the resulting construction
27 may be too broad. Phillips, 415 F.3d at 1321.

1 Federal Circuit decisions take a less favorable view of other forms of extrinsic evidence,
2 such as expert testimony and prior art not cited in the specification or the prosecution history, noting
3 that “claims should preferably be interpreted without recourse to extrinsic evidence, other than
4 perhaps dictionaries or reference books, and that expert testimony should be received only for the
5 purpose of educating the judge.” EMI Group N. Am., Inc. v. Intel Corp., 157 F.3d 887, 892 (Fed.
6 Cir. 1998), cert. denied, 526 U.S. 1112 (1999). Although “extrinsic evidence in general, and expert
7 testimony in particular, may be used . . . to help the court come to a proper understanding of the
8 claims[,] it may not be used to vary or contradict the claim language Indeed, where the patent
9 documents are unambiguous, expert testimony regarding the meaning of a claim is entitled to no
10 weight.” Vitronics, 90 F.3d at 1584.

11 The Federal Circuit recently revisited the basic approach to claim construction in Phillips.
12 415 F.3d 1303. Although Phillips consists largely of an affirmation of ten years of claim
13 construction jurisprudence, it provides at least two pieces of additional guidance. First, the Federal
14 Circuit rejected a line of cases suggesting that claim interpretation must begin with a dictionary
15 definition of the disputed terms. Id. Second, the Federal Circuit emphasized that claim terms must
16 be interpreted in light of their context, especially the language used in other claims and the
17 specification. Id. at 1321. Taken as a whole, Phillips appears to signal a small retreat from
18 formalism and bright-line rules in claim construction. As a result, the court will focus primarily on
19 the intrinsic record before it. Cases cited by the parties in support of fixed “rules” of claim
20 construction will accordingly be given somewhat less weight.

21 22 DISCUSSION

23 I. Level of Ordinary Skill

24 “Factors that may be considered in determining level of ordinary skill in the art include:
25 (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art
26 solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the
27 technology; and (6) educational level of active workers in the field.” Envtl. Designs, Ltd. v. Union
28 Oil Co., 713 F.2d 693, 696 (Fed. Cir. 1983) (citing Orthopedic Equip. Co. v. All Orthopedic

1 Appliances, Inc., 707 F.3d 1376, 1381–82 (Fed. Cir. 1983)). These factors are not exhaustive and
2 merely provide guidance when determining the level of ordinary skill in the art.

3 The art involved in these patents is the manipulation of the properties of light, heat and air to
4 improve projector design and life. The parties do not seem to have an argument regarding the level
5 of ordinary skill of one in the art. Neither party has presented a standard, nor argued for the same.
6 Based on the factors outlined above, the court holds that one of ordinary skill in the art is: “one with
7 a Bachelor’s degree in physics, engineering, optics or other related field who also is familiar with the
8 design of projectors.”

9 10 II. Claim Construction

11 A. The ‘831 patent

12 The ‘831 patent discloses and claims a cooling device for projectors. The claims protect the
13 heat-susceptible parts of a projector from excessive heat by using a fan to remove hot air created by
14 the light source in the projector. ‘831 patent at 2:23–41. Specifically, the patent contemplates a
15 mechanism whereby hot air is directed toward the fan’s blades, not the center of the fan, in order to
16 protect the fan’s motor located at the center. This mechanism avoids exceeding the fan’s maximum
17 operating temperature and thereby increases the fan’s life and reliability. Id. at 1:43–65.

18 Claim 1 is the only independent claim of the ‘831 patent and contains both of the claim terms
19 at issue. Claim 1 is reproduced below with the disputed terms underlined:

20 1. A cooling device for a projector, comprising:

21 a light source, providing light to a projector;

22 a second exhaust fan, comprising a second fan hub and a plurality of second fan
23 blades, said second fan hub being installed at a center of the second exhaust fan, the
24 second fan blades being respectively connected to a periphery of the second fan hub,
the second fan hub controlling the second fan blades to rotate, exhausting air from the
vicinity of the second fan blades inside the projector through the second fan blades to
the outside of the projector; and

25 an air duct, extending at least from the light source to the second exhaust fan,
26 exhausting air from the vicinity of the light source through the second fan blades to
the outside of the projector;

27 characterized in that, the air duct is in a closed status and is positioned adjacent to a
28 periphery of the light source to concentrate the direction of exhausted air, and the
outlet of the air duct is squarely and exclusively aligned with the second fan blades.

1 Id. at 6:10–34.

2 1. “second exhaust fan”

3 Coretronic argues that the “second exhaust fan” term in the ’831 patent means “a fan at the
4 end of the cooling path for drawing air out of the projector.” Specifically, they argue that the second
5 exhaust fan is not one of two fans, but that “second” is simply a designation used by the patent since
6 the patent describes other embodiments with more than one fan. Further, they argue, the fan must be
7 at the end of a cooling path—the path labeled in the patent as the fourth hot current—to draw air
8 directly out of the projector. Seiko, on the other hand, argues for two fans and against a specified
9 location for the second fan by proposing the following construction: “one of two fans placed to blow
10 air to the exterior of the projector.”

11 The patent states, in the summary section, that the objective of the patent may be achieved
12 “[w]ith an air duct extending from the light source to *a* second exhaust fan, so air in the vicinity of
13 the light source is exhausted through the second fan blades and out of the projector” Id. at
14 2:29–38 (emphasis added). This statement demonstrates that more than one fan was implicitly
15 contemplated by the patent since the second exhaust fan is referred to as “a second exhaust fan,” not
16 “the second exhaust fan” as would be the case were the word “second” being used as nomenclature.
17 This use of “a” is also prevalent when the patent’s drawings are described. See id. at 2:55–3:2,
18 Claim 1 (referring to “a second exhaust fan), Claim 6 (referring to “a third exhaust fan.”).
19 Moreover, the term “a” is more generally used in patents over the term “the” when more than one
20 instance of the object is contemplated.

21 The patent explains that the fourth hot current creates the problem to be solved because it
22 passes the light source heat exhausting unit, where it absorbs the heat generated by the light source.
23 Id. at 1:33–65. In the prior art, the fourth hot current carries heat “directly against the second fan
24 hub” so that the heat collects in front of the fan hub before it passes through the second fan blades
25 and out of the projector. Id. at 1:46–54. Thus, Coretronic argues, the patentee used “second fan” in
26 his patent to mean the fan at the end of the cooling path for the fourth hot current to draw air directly
27 out of the projector. This, they claim, makes the patent applicable to projectors with one fan only.
28 In making this argument, however, Coretronic ignores the other hot currents present in the projector

1 that are expelled by other fans. The fourth hot current is formed when the first hot current splits into
2 the third hot current and the fourth hot current. Id. at 1:19–22. The third hot current exits the
3 projector through the first fan blades. “Due to the action of the second fan 158, the fourth hot
4 current 156 directed through the third fan 162 into the light source heat exhausting unit 16 passes an
5 air duct 161 to absorb the heat generated by the light source 121, so the temperature of the fourth hot
6 current 156 rises rapidly.” Id. at 1:33–37. Seemingly, the problem to be solved is created by the
7 presence of two fans. There is no discussion about the hot currents created if only one fan were to
8 be employed; consequently, the court is unwilling to expand this claim to include projectors with
9 only one fan. The use of a “second exhaust fan” inherently teaches the use of more than one fan in
10 the projector.²

11 Coretronic’s argument relying upon Gillette Co. v. Energizer Holdings, Inc., 405 F.3d 1367,
12 1373 (Fed. Cir. 2005), is unpersuasive. There, the Federal Circuit held that claim language
13 “comprising a group of first, second, and third blades” in a patent for wet-shave safety razors with
14 multiple blades encompassed more than just three-bladed razors because the terms “first, second,
15 and third” were terms to distinguish different elements of the claim, not terms supplying a numerical
16 limit, and that the specification’s definition of the invention as encompassing “a plurality of blades”
17 eschewed any numerical limit on the number of blades. Id. Gillette is distinguishable because there
18 is no argument that the ‘831 patent *limits* the number of fans that may be used in the projector. The
19 relevant question is the floor on the number of fans, not the ceiling. Further, Gillette actually
20 supports this court’s holding because the “second” blade there referred to blades in addition to other
21 blades, just as the second exhaust fan here must refer to a fan in addition to another fan. Indeed, just
22 as “any blade in between the first and third blades and with an exposure greater than that of the first
23 blade and less than that of the third blade is a ‘second’ blade in the claimed subset of blades,” id.,
24 any fan that exhausts the fourth hot current while the third hot current exits the projector through the
25 first fan can be considered a “second exhaust fan.”

26 The claim recites a “second exhaust fan” to be used for “exhausting air from the vicinity of
27 the second fan blades inside the projector through the second fan blades to the outside of the
28 projector” ‘831 patent at 6:20–23. The purpose of the second exhaust fan would not be served

1 if it were located at any place other than the end of a cooling path because then it could not exhaust
2 air through its blades to the outside. Consequently, the fan must be located at the end of a cooling
3 path. This is further buttressed by the claim language which states that the air duct extends “from
4 the light source to the second exhaust fan, exhausting air from the vicinity of the light source
5 through the second fan blades to the outside of the projector.” *Id.* at 6:24–27. No further movement
6 through the projector, other than expulsion from the projector, is contemplated from the time the air
7 hits the fan blades until it is outside the projector. This analysis also comports with the ordinary
8 everyday meaning of “exhaust fan,” which expels air from the inside of a closed area to the outside,
9 not a fan placed to “blow air to the exterior” of an area, or in this case, the projector. Indeed, in all
10 five of the preferred embodiments, air that passes through the second fan’s blades immediately
11 passes out of the projector. *See, e.g., id.* at 4:15–20 (air is “rapidly expelled from the projector”
12 upon hitting the fan blades), 4:40–53 (air ducts aligned with fan blades to “induct directly the fourth
13 hot current escaping from the air outlet into the second fan blades and rapidly out of the projector.”).
14 Therefore, this language cannot mean an “air guide” or “intermediate” fan in the interior of the
15 projector that merely moves air from one part of the interior to the other.³

16 Seiko argues that the court is not asked to construe “through the second fan blades to the
17 outside of the projector . . . ,” *id.* at 6:20–23, but simply to construe “second exhaust fan,” without
18 any reference to its location. It claims incorporating the fan’s location would fail to give meaning to
19 all terms of the claim, in violation of standard set forth by the Federal Circuit. *See Merck & Co.,*
20 *Inc. v. Teva Pharmaceuticals USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005). For example, they
21 argue that when construing “dog” with a claim limitation referring to a “dog with spots” should not
22 be limited to “[spotted dogs] with spots.” In effect, they may be conceding that the fan must be
23 located at the end of the air vent but would nevertheless like to continue to belabor this point *ad*
24 *infinitum*. An inclusion of the location of the fan, however, does not make the full claim language
25 superfluous since it clarifies the meaning of “through the second fan blades to the outside of the
26 projector,” *id.* at 6:20–23, in light of the second exhaust fan. *See Phillips*, 415 F.3d at 1314 (“the
27 context in which a term is used in the asserted claim can be highly instructive”). The alleged
28 surplusage is still necessary to demonstrate that the hot air passes through the *blades* of the second

1 exhaust fan and not through any other portion of the fan—the inventive step of the patent.
2 Furthermore, the purpose of claim construction is to illuminate the scope of the patent and remove
3 ambiguity—incorporating the location of the fan does exactly that. Indeed, as Coretronic argues, a
4 better analogy would be a claim for a “spotted dog whose spots are only located on its back.”

5 In light of the above discussion, the court construes “second exhaust fan” here as “fan, in
6 addition to one other fan somewhere else in the projector, at the end of the cooling path for drawing
7 air out of the projector.”

8 2. “the air duct is in a closed status and is positioned adjacent to the periphery of
9 the light source to concentrate the direction of exhausted air”

10 Coretronic argues this phrase in the ‘831 patent needs no construction because none of these
11 words is unusually esoteric or arcane, nor does anything in the specification reveal that the patentee
12 was his own lexicographer.⁴ Seiko proposes the court construe this phrase as “the airflow passage
13 encloses the area around the light source in order to direct the air heated by the light source in a
14 single direction.”

15 In contradiction to its argument with respect to “second exhaust fan,” Seiko now correctly
16 urges the court to read the claim language as a whole. This language states:

17 an air duct, extending at least from the light source to the second exhaust fan,
18 exhausting air from the vicinity of the light source through the second fan blades to
19 the outside of the projector; characterized in that, the air duct is in a closed status and
is positioned adjacent to a periphery of the light source to concentrate the direction of
exhausted air, and the outlet of the air duct is squarely and exclusively aligned with
the second fan blades.

20 ‘831 patent at 6:24–33.

21 The major dispute between the parties is the area encompassed by the air duct in the
22 periphery of the light source. Seiko argues that the air duct must enclose the area around the light
23 source, whereas Coretronic argues for the plain meaning, which presumably does not require the air
24 duct enclose the entire area around the light source.

25 Seiko claims that without guidance based on evidence beyond the bare claim language, the
26 jury could be confused, for example, as to whether the language means that the air duct is only a
27 tube-like structure placed to one side of the lamp or whether, as is correct, the air duct encompasses
28 the entire area around the lamp, as illustrated in Figure 7 of the patent. Seiko, however, is unable to

1 demonstrate why the claim language must be limited to the preferred embodiment demonstrated in
2 Figure 7 when the claim language is presumably broader. It would be clear to one skilled in the art
3 that if the duct does not encompass the entire area around the lamp, some of the hot air may flow to
4 the hub of the fan. However, the claim language does not *require* the duct to encompass the entire
5 area around the lamp. Indeed, the inventive step here teaches the expulsion of concentrated hot air
6 through the blades of the second fan, not how much of the hot air generated by the light source is to
7 be expelled through the fan blades. The summary of the invention states that “air in the vicinity of
8 the light source is exhausted through the second fan blades and out of the projector,” *id.* at 2:30–32,
9 not that *all* air in the vicinity of the light source is exhausted in this manner.

10 As far as intrinsic evidence is concerned, Seiko can only point to the detailed description of a
11 preferred embodiment for its proposed construction. The claimed air duct is described, only once, as
12 “surrounding the light source.” *Id.* at 3:44–45. In light of claim language that is broader, the court
13 declines to limit the claim to a preferred embodiment.

14 In its amendments of January 29, 2004, the patentee stated to the Patent Office that “[b]y
15 means of closed duct, the airflow cooling the inside of light source can be directed to the exhaust
16 fan.” Joint Appendix at 504. This ensures that the “airflow with [sic] hottest temperature can be
17 directly exhausted out of the projector without diverging to the hub of the fan to prevent the hub
18 from raising the temperature.” *Id.* The patentee distinguished prior art by stating that prior art
19 discloses only an “open airflow channel for cooling the inside of [sic] light source. The open airflow
20 channel can’t ensure that the airflow with hottest temperature doesn’t flow to the hub of the fan so as
21 to completely point toward the blades of the fan.” *Id.* None of these statements require that *all* of
22 the hot air generated by the light source be captured by the closed duct and thereafter be expelled via
23 the second exhaust fan.⁵

24 Furthermore, Seiko’s construction suggests a singular purpose for the air duct—to direct the
25 air heated by the light source in a single direction. Such a requirement is contradicted by the
26 embodiments in the patent because air heated by the circuit board is also expelled through this air
27 duct. *See* ‘831 patent, Fig. 3 (circuit board 341 heats air that is eventually expelled via the air duct),
28 Fig. 4 (circuit board 441 heats air that is eventually expelled by the air duct). Seiko’s proposed

1 construction can also be read to exclude the “closed status” of the air duct. Indeed, the construction
2 that the “airflow passage encloses the area around the light source” does not necessarily require that
3 the air duct is a closed passageway that does not allow the air inside the passageway to permeate.

4 In sum, though it is clear that the invention is limited to air ducts that prevent lamp-heated air
5 from flowing to the hub of the exhaust fan, it is not a necessity that all air heated by the light source
6 be removed in this manner, nor is it a necessity that the air duct only contain air heated by the light
7 source. Though it would be clear to one skilled in the art that if all the air heated by the light source
8 is not exhausted in this manner, hot air may reach the fan hub by some other route, the claim
9 language does not inject that limitation into the claim and consequently, the court declines to do so.

10 Similarly, the restriction that air be directed “in a single direction” finds no support in the
11 claim language or specification. Indeed, “concentrate the direction of the exhausted air” could be
12 construed to mean that the duct aims to generally direct the air in a particular direction. It is unclear
13 to the court how Seiko’s proposed construction aids the fact-finder. These specific but common
14 English words have no special meaning in the context of this patent and therefore do not require
15 construction.

16 Consequently, based on the above, the court adopts the ordinary meaning of the phrase “the
17 air duct is in a closed status and is positioned adjacent to a periphery of the light source to
18 concentrate the direction of exhausted air.”

19
20 B. The ‘899 patent

21 The ’899 patent also teaches improvements in cooling projectors and protecting other parts
22 from the extreme heat the light source creates. Specifically, it discloses and claims a cooling
23 apparatus for a projector that shields the outer casing from the radiant heat the light source creates,
24 thereby reducing the temperature of the projector’s outer casing. ‘899 patent at 1:66–2:4. This
25 precludes the outer casing from getting too hot and thereby improves the projector’s life and
26 usability. The patent recognizes that a sheet can be used to shield and isolate the radiant heat in
27 order to reduce the temperature of the casing. Id. To this end, the patent claims at least one guiding
28

1 surface that guides hot air through an air duct created by the casing itself in order to expel hot air,
2 thereby reducing the convection of heat from the lamp to the outer casing.

3 Claim 1 of the '899 patent, with the disputed terms underlined, claims:

4 1. A cooling apparatus for projector casing, comprising:

5 a casing having an interior;

6 a lamp holder fixed in the interior of the casing, and having at least one guiding
7 surface on one side near the lower edge of the lamp holder;

8 a ventilation outlet disposed on the casing and proximate the side of the lamp holder;

9 an upper sheet disposed at the top of the lamp holder and keeping a distance from the
casing to define an upper air duct;

10 a lower sheet disposed at the bottom of the lamp holder and keeping a distance from
the casing to define a lower air duct; and

11 a fan disposed adjacent to the lamp holder.

12 Id. at 4:12–26.

13 Claim 11, with the disputed terms underlined, claims “[t]he cooling apparatus for projector
14 casing of claim 1, wherein the fan is disposed adjacent to the side of a lamp holder having the
15 guidance surface.” Id. at 4:57–59.

16 Coretronic argues that the phrase “guiding surface” in the ‘899 patent requires no
17 construction because these common words were not given a special meaning by the inventors for
18 purposes of this patent. They argue there is no ambiguity in the combination of these two common
19 English words. Finally, they state that Claim 1 even describes where at least one guiding surface
20 must be located in the claimed apparatus—“on one side near the lower edge of the lamp holder.”
21 ‘899 patent at 4:15–16.

22 Seiko’s preferred construction is “a surface that steers air flow into or out of the lower air
23 duct.” This involves two major changes to the claim term: 1) use of the word “steer” and 2) a
24 limitation that the surface only involve air flow into or out of the lower air duct. The use of the word
25 “steer” instead of the word “guide” does nothing to illuminate the meaning of this disputed phrase.
26 Indeed, it introduces further ambiguity into the phrase since the word “steer” is nowhere else used in
27 the patent. Furthermore, Seiko concedes that “guide” and “steer” are synonyms, thereby
28 eviscerating the need to replace the word “guide” with the word “steer.” Seiko Opp. Br. at 4 n.1.

1 When describing one embodiment, the specification states that the components of the
2 projector are arranged “such that the side of the lamp holder having the guiding surface faces the fan
3 and keeps a gap between the between the lower sheet at the lower side of the lamp holder and the
4 lower casing to form a lower air duct.” Id. at 3:25–29. In this embodiment, the guiding surface
5 simply guides some of the air blowing from the fan into the lower air duct. Indeed, the role of the
6 guiding surface is to “guide the airflow.” Id. at 3:45–47.

7 Seiko attempts to mislead the court by selectively quoting the patent. The patent summary
8 states that “the present invention comprises a lamp holder with a lamp inside a casing; *at least one*
9 *guiding surface* at the lower edge proximate one side of the lamp holder” Id. at 2:5–18
10 (emphasis added). This language does not limit the guiding surface to the lower edge. The use of
11 “at least” allows for more guiding surfaces that are not at the lower edge proximate one side of the
12 lamp holder. Indeed, the claim itself mirrors this language. See id. at 4:14–16 (“a lamp holder fixed
13 in the interior of the casing, and having at least one guiding surface on one side near the lower edge
14 of the lamp holder . . .”).

15 The guiding surface 323 is illustrated in Figures 4, 5 and 6 of the patent. In each case, it is
16 described in the form of a diagonally-shaped surface at one side of the lamp holder that is part of the
17 lower sheet that defines the air duct. However, the patent also defines an upper air duct. Indeed,
18 many of the claims in the patent relate to the upper air duct. See id., Claims 5–8. Further, the patent
19 claims allow for more than one guiding surface to be present. Specifically, there is no limitation that
20 the guiding surface may *not* be used in conjunction with the upper air duct, even though the same is
21 not present in any embodiment specified by the patent. The plain language of Claim 1, along with
22 claim language describing an upper sheet and corresponding air duct, demonstrate the potential use
23 of the guiding surface in conjunction with an upper air duct. Without further evidence that the
24 patentee intended to limit his invention to the preferred embodiments, the court refuses to insert
25 Seiko’s proposed limitation into this claim’s construction. It must be noted that Claim 1 of the
26 patent does require, independent of other guiding surfaces that may be present, at least one guiding
27 surface be present on “one side near the lower edge of the lamp holder.” Id. at 4:14–16.
28

Consequently, based on the foregoing discussion, the court finds no reason to construe “guiding surface.”⁶

C. The ‘158 patent

The ‘158 patent is also directed at cooling projectors. The specification explains how cooling efficiency can be enhanced if a projector’s power unit is cooled by using fresh air from outside the projector which is cooler than the air inside the projector’s case. The summary describes a projector where the outer case of the projector has a cooling air intake port to let in fresh air from outside the outer case. The projector also includes a means for directly conducting that fresh air from the intake port to the inlet of the ventilating path. This ventilating path is “provided inside the power unit for circulating cooling air.” ‘158 patent at 2:60–3:2. When this cooler air is used to cool the power unit, cooling efficiency is achieved.

Two independent claims have been asserted: Claims 1 and 5. Both recite an optical unit, a power unit, an outer case, and first and second cooling air intake ports. The terms to be construed in Claim 1 are underlined in the claim limitations reproduced below:

1. A projector, comprising:

an optical unit including a light source lamp and a projection lens, the optical unit forming an optical image in response to image information by optically treating light beams emitted from the light source lamp and expansively projecting the optical image through the projection lens;

a power unit including a ventilating path provided inside the power unit for circulating cooling air;

an outer case that stores the optical unit and the power unit;

a first cooling air intake port located on the outer case that provides cooling air from outside of the outer case to the optical unit; and

a second cooling air intake port located on the outer case that directly conducts cooling air from the outside of the outer case to the ventilating path, said second cooling air intake port comprising:

an air inlet provided on the power unit, and

a duct connecting said second cooling air intake port and the air inlet.

‘158 patent at 15:26–47. Similarly, Claim 5 with the disputed terms underlined reads:

5. A projector, comprising:

1 an optical unit including a light source lamp and a projection lens, the optical unit
2 forming an optical image in response to image information by optically treating light
3 beams emitted from the light source lamp and expansively projecting the optical
4 image through the projection lens;

5 a power unit including an air inlet and an air outlet;

6 an outer case that stores the optical unit and the power unit;

7 a first cooling air intake port located on the outer case that provides cooling air from
8 outside of the outer case to the optical unit;

9 a second cooling air intake port located on the outer case that directly conducts
10 cooling air from the outside of the outer case to the air inlet; and

11 an exhaust vent provided on the outer case that directly conducts air exhausted from
12 the air outlet to the outside of the outer case.

13 Id. at 16:10–30.

14 1. “ventilating path provided inside the power unit for circulating cooling air”

15 Seiko argues that this phrase from the ‘158 patent be construed as “a route in the power unit
16 along which air moves while cooling the power unit, the power unit being the portion of the
17 projector that includes components that convert and regulate electrical power for use in the
18 projector.” Coretronic argues that the phrase be construed as “a path for circulating fresh air
19 inside an enclosed unit that provides power, wherein air may flow into and out of the unit only
20 through the air inlet and the air outlet of the enclosed unit.”

21 There is no argument that “cooling air” in the claims means that fresh air from *outside* of the
22 outer case cools the interior of a power unit. The parties’ dispute focuses on whether the power unit
23 must be enclosed and whether the construction should include the “air outlet” limitation.

24 The power unit is described by Claim 1 as “including a ventilating path provided inside the
25 power unit for circulating cooling air.” The path is provided cooling air by the second cooling air
26 intake port which comprises “an air inlet provided on the power unit, and a duct connecting said
27 second cooling air intake port and the air inlet.” The power unit in Claim 5 is merely described as
28 “including an air inlet and an air outlet.”

Neither description characterizes the power unit as enclosed or unenclosed. Coretronic states
that the disputed phrase requires that the ventilating path be *inside* the power unit. Indeed, the
specification explains that “[b]ecause the cooling air conducting means directly conducts fresh air to

the ventilating path, and because fresh air is cooler than the air in the outer case, the interior of the power unit can be cooled with high efficiency.” Id. at 3:3–6; see also id. at 3:21–22 (“The interior of the power unit can therefore be more efficiently cooled.”). Further, the claim also requires that the location of the air inlet into the power unit be somewhere *on* the power unit. Read together, Coretronic argues, the claim requires a projector having an air inlet on an *enclosed* power unit that has a ventilating path therein.

This reading is not supported by the claim language. The relevant feature of the power unit described in the specification is not its structure, but that it is a source of heat, which therefore needs to be cooled. See id. at 1:62–2:2. The focus of the invention is on cooling the power unit with fresh outside air, rather than using the already-heated air that has been circulating within the case:

The power unit 7 is cooled with great efficiency because a cooling air conducting means is provided for directly introducing fresh air into a ventilating path provided inside the power unit. Direct introduction of fresh air into the ventilating path permits cooling of the interior of the power unit by fresh air, which is cooler than the air in the outer case 2, and accordingly results in greater cooling efficiency.

Id. at 15:1–7. Indeed, the whole patent is aimed at achieving greater cooling efficiency. This efficiency is achieved when cooler air is used to cool the power unit. There is no requirement that the power unit be enclosed in order for the efficiency benefits to be realized. As one of ordinary skill in the art would surely recognize, the power unit may be more efficiently cooled if cooler air is used to perform the cooling. This patent simply provides a mechanism whereby cooler air from the outside is introduced into a path inside the power unit.⁷

Coretronic argues that the specification describes the power unit as containing “various electronic parts in an L-shaped metallic shield case 70.” Id. at 8:11–12. This preferred embodiment, even if it does imply a completely enclosed power unit, does not disavow power units that are not enclosed or only partially enclosed. Coretronic argues that nothing in the specification suggests that other embodiments leave the power unit unenclosed. Indeed, the specification teaches that, in other embodiments, the air inlet may be on another surface of the shield case, such as the shield case’s front side face, rather than on its end face. Id. at 14:57–67. Rather than implying that the shield case is optional, they argue this language demonstrates that the patent contemplates other embodiments that *also* use a shield case to enclose the power unit. Nevertheless, the mere fact that

1 the patent specification only discusses power units that are enclosed does not mean that the power
2 unit must be enclosed in order to benefit from the efficiency enhancing technique taught by the
3 claims. Indeed, no language in the claims limits the patent to enclosed power units only. The patent
4 specification describes the power unit as including a variety of power-related components, such as a
5 power supply, a ballast and other devices. Id. at 2:12–21. There is no further detail, apart from the
6 preferred embodiment, as to the structure of this unit other than as a collection of components.

7 Coretronic incorrectly argues that Seiko seeks a construction so broad that the “ventilating
8 path” encompasses *any* air flow that cools power components within a projector. This is incorrect
9 because the ventilating path here is necessarily limited by the other limitations of the claim which
10 require that the air in the ventilating path comprise of cooling air from the outside. See generally id.,
11 Claim 1. A construction of “ventilating path” that does not require an enclosure around the power
12 unit does not read “inside” out of the claim. Indeed, the path can be inside the power unit even if the
13 power unit itself does not have an enclosure because the unit may nevertheless have delineated
14 boundaries. For instance, a property boundary may be delineated in many ways other than a
15 boundary fence, such as maintenance or landscaping up to the boundary. The same rationale applies
16 to technological components arranged within a projector’s outer case. Seiko’s proposed
17 construction, which includes “a route in the power unit along which air moves while cooling the
18 power unit,” appropriately accounts for the “inside” language of the claim.

19 The above rationale also applies to “air inlet provided on the power unit.” The inlet may be
20 at a boundary of the power unit, which eliminates the need for the power unit to be enclosed. For
21 instance, a stream entering one’s land does not require a boundary fence be in place—it can still be
22 considered a water inlet onto one’s land. Here, the summary of the invention describes a “cooling
23 air means for directly conducting fresh air from outside the outer case from the cooling air intake
24 port to the *inlet* of the ventilating path.” Id. at 2:66–3:2 (emphasis added). This inlet could be
25 located on a boundary and need not necessarily be an inlet through an enclosure.

26 Without an enclosure, Coretronic argues that the heated air within the outer case cannot be
27 kept separate from the fresh air used to cool the power unit components. This requirement—that
28 only fresh air cool the power unit components—is not stated in the claim language, but is part of an

1 optional addition contemplating the use of a closed air duct that “prevents the air from the outer
2 case, which is hotter than the fresh air, from entering into the ventilating path.” *Id.* at 3:19–21.
3 Thus, there is no requirement that the hot and cool air be kept separate, just that air that is generally
4 cooler than the air inside the projector—because some of it came from outside the projector—be
5 used in the ventilating path. It would be clear to one of ordinary skill in the art that a greater
6 concentration of cooler air would lead to greater efficiency gains. Further, one of ordinary skill in
7 the art would also know how to position component parts within a projector in order to maximize the
8 availability of fresh air to the path inside the power unit without necessarily providing for an
9 enclosure around the power unit.

10 Coretronic confuses the reasons as to why the ventilating path is placed inside the power
11 unit. The path is placed there in order to cool the unit, not in order to prevent the air from within the
12 outer case from entering the ventilating path. The summary section of the patent specification
13 makes clear that it is the *optional* closed duct section that “prevents the air from the outer case,
14 which is hotter than the fresh air, from entering into the ventilating path.” *Id.* at 3:17–21. Thus, it is
15 the optional closed duct section that precludes the hotter air from entering the ventilating path, not
16 the fact that the power unit is enclosed.

17 Finally, Coretronic seeks to insert an “air outlet” limitation into this construction that is
18 simply not present in Claim 1.

19 In sum, in light of the above discussion, the court adopts most of Seiko’s proposed
20 construction to construe this term as “a route in the power unit along which at least some fresh air
21 moves while cooling the power unit, the power unit being the portion of the projector that comprises
22 components that convert and regulate electrical power for use in the projector.”⁸

23 2. “directly conducts cooling air”

24 Seiko argues that this phrase from the ‘158 patent be construed as “transmits cooling air
25 without substantial contamination by internal sources of heat.” Coretronic argues for “directly
26 guides the cooling air.” Coretronic’s construction is akin to no construction at all. It merely
27 substitutes “guides” for “conducts.”
28

The patent language states that “[b]ecause the cooling air (fresh air) from the cooling air intake port 150 is directly introduced to the ventilating path in the shield case 70, the heat sinks can be effectively and securely cooled.” *Id.* at 13:19–22. Indeed, the inventive step in the patents is the introduction of fresh air, which is cooler than the air within the outer casing of the projector, to cool the power unit more efficiently. The patent specifically states that the virtue of fresh, outside air is that such air “is cooler than the air in the outer case.” *Id.* at 3:3–6. To that end, the phrase “directly conducts cooling air” must make clear that the fresh air retains some of its relatively cool character until it reaches the power unit.

Seiko’s proposed construction is therefore preferable. That construction, however, is not limited to the air’s temperature. Therefore, the court modifies that construction to construe “directly conducts cooling air” as “transmits cooling air without reducing its temperature to that of the air inside the outer casing of the projector.”

The court notes that this construction does not read out “directly” from the claim term. That word is explicated to explain to the fact-finder that directly means “without reducing its temperature to that of the air inside the outer casing of the projector.” Indeed, this is how this invention distinguishes itself from the prior art. In the prior art:

By the time that air is introduced to the power unit in the outer case, it has already been heated by many other elements located in the outer case. Thus, the air introduced to the power unit is hotter than the fresh air introduced into the outer case, and is less efficient in cooling the power unit.

Id. at 2:26–30. Thus, the efficiency gains are realized when the fresh air is cooler than the air inside the outer case of the projector, which is captured by the above construction.

3. “duct connecting said second cooling intake port and the air inlet”

Seiko argues that this phrase from the ‘158 patent be construed as “structure that limits the direction of airflow between the intake port on the outer case and an opening leading to a ventilating path of the power unit so as to form an airflow passage.” Coretronic argues for “an enclosed passage for conveying air, the passage providing a sealed connection between the second cooling air intake port and the air inlet.” The parties’ dispute focuses on whether the duct needs to be enclosed or may be open.⁹ This boils down to the fundamental dispute between the parties as to whether this patent merely states a mechanism whereby exclusively fresh air is introduced into an enclosed power unit

1 or whether the patent states a mechanism to improve cooling efficiency by cooling the power unit
 2 with some amount of cooler fresh air as opposed to air already present within the outer casing of the
 3 projector.

4 In common parlance, duct means a tube or a passageway. Dictionary definitions provided by
 5 both parties note that ducts are “often enclosed,” but do not require enclosure. One of ordinary skill
 6 in the art would know that he could create a duct that leads fresh air to the ventilating path in the
 7 power unit without creating an enclosure around the duct. Indeed, one of skill in the art could place
 8 projector components in a configuration such that ducts are naturally created by the placement of the
 9 components. One of ordinary skill in the art would also realize, as stated in the summary section of
 10 the patent specification, that this duct—the cooling air conducting means—*could* be an enclosed
 11 duct section, which would prevent the mixture of hot air inside the projector with the cooler air in
 12 the duct and also eliminate the possibility of drawing dust into the outer case. *Id.* at 3:14–35. The
 13 cooling air conducting means involving an enclosed duct section, however, is merely a preferred
 14 alternative stated in the patent. *Id.* at 3:14 (“It is preferred that the cooling air conducting means
 15 include a duct section”). Coretronic’s argument that an embodiment prefers an enclosed duct is
 16 unpersuasive to import that limitation into the claim language.¹⁰ In light of no other evidence in the
 17 patent specification or claims that requires an enclosed duct, the court is unwilling to import that
 18 limitation into the claim.

19 In sum, Seiko’s construction is preferable. Consequently, the court construes “duct
 20 connecting said second cooling intake port and the air inlet” as “structure that limits the direction of
 21 airflow between the intake port on the outer case and an opening leading to a ventilating path of the
 22 power unit so as to form an airflow passage.”

23 24 D. The ‘004 patent

25 The ‘004 patent is directed to a projector that cools its light-source lamp efficiently while
 26 concurrently suppressing noise. This is achieved through the combination of a sirocco fan and an
 27 axial-flow fan, rather than two axial-flow fans or a single large axial-flow fan. The sirocco fan,
 28 which is quieter than an axial-flow fan, but delivers less air pressure, cools the base side of the light

source lamp, while the axial-flow fan speeds the exhaust of the air blown by the sirocco fan, thereby permitting the fan combination to achieve a sufficient cooling effect.

Claim 1 is at issue here, which states, with the disputed terms underlined:

1. A projector, comprising:

a light-source lamp having a base side, luminous flux emitted from the light-source lamp being magnified and projected so as to form a projected image after being modulated;

a sirocco fan that exhausts cooling air to the base side of the light-source lamp so as to intensively cool the base side of the light-source lamp; and;

an axial-flow fan disposed in a vicinity of the light-source lamp that exhausts the cooling air after completion of cooling.

'004 patent at 10:19–30.

For the phrase “intensively cool the base side of the light-source lamp” in the '004 patent, Seiko proposes a construction of: “to effectively conduct heat away from that portion of the light-source lamp lying in the direction opposite to that in which light is emitted and behind the reflecting surface,” and Coretronic proposes: “direct all or substantially all of air flow to cool the side of the light source lamp opposite to the side from which light emerges and outside of a reflector.”

The patent describes “base side” to be “the side opposite the light-emergence.” *Id.* at 2:30–31. The light-source lamp itself is a conical structure with the rod-like light-bulb in the middle. The circular base of the cone is a reflector that directs the light and the vertex of the cone is consequently the “base side” of the light-source lamp.

The parties disagree at to whether “intensively cool” means the sirocco fan directs all or substantially all of its exhaust air to the base side of the light source lamp or whether that fan only needs to move air to conduct heat away from the area by the base side of the lamp. The court is unclear as to the difference between these two constructions—the effect of directing exhaust air to cool the base side is indistinguishable from moving air to conduct heat away from the area. In both instances, the base side of the lamp will be cooled. The difference seems to be whether the sirocco fan directly exhausts air upon the base side of the lamp or achieves the same intensive cooling effect by directing air elsewhere.

1 Parties can point to no evidence in the patent specifications that demonstrates that the
2 patentee intended to be his own lexicographer with respect to “intensively cool.” Since both words
3 are common English words, the fact-finder presumably does not need the court’s assistance in
4 construing these words. Furthermore, “base side” has already been defined in the patent
5 specification.

6 Coretronic argues that “intensively cool” requires that all or substantially all of the air flow
7 the sirocco fan produces must go to the task of cooling the lamp’s base side. The modifier
8 “intensively,” however, is related to the temperature of the base side, not the ferocity with which the
9 fan cools the base side. Indeed, it is conceivable that through other advancements and better design,
10 the sirocco fan could intensively cool the lamp’s base side without directing all or substantially all of
11 its air flow to that task. Coretronic’s reference to a preferred embodiment which requires “[t]he
12 greater part of the cooling air exhausted from the first sirocco fan . . . so as to intensively cool the
13 light-source lamp,” *id.* at 7:18–27, does not limit the sirocco fan in the claim to only primarily
14 performing this task.

15 The entire claim term reads: “a sirocco fan that exhausts cooling air to the base side of the
16 light-source lamp so as to intensively cool the base side of the light-source lamp.” By adopting
17 Coretronic’s construction whereby all or substantially all of the air flow is directed toward the
18 lamp’s base side, the court would, in effect, be re-writing the above claim term to be: a sirocco fan
19 that exhausts *all or substantially all of its* cooling air to the base side of the light-source lamp so as
20 to intensively cool the base side of the light-source lamp. This intent can be gleaned from the
21 prosecution history of the ‘004 patent.

22 During prosecution, the patentee allegedly distinguished the airflow path disclosed in U.S.
23 Patent No. 6,280,038 (“the ‘038 patent”) by arguing that in the prior art reference, the air flow “does
24 not intensively cool the base side of the source lamp because some of the air [flow] is first used to
25 cool [other components of the light source].” Joint Appendix at 262.

26 Specifically, during this patent’s prosecution, in an office action dated April 30, 2002 the
27 Patent Office rejected Claims 1 and 6. The patent examiner stated:

28 Claims 1 and 6 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S.
Patent No. 6,280,038 to Fuse et al.

FIG. 1 of Fuse clearly shows a projector including a discharge lamp 1, used as a light source, the ventilation unit 61, shown as FIG. 3 as a sirocco fan, and the fan 28, shown as an axial fan. The ventilation unit 61 exhausting air along the air paths W1, W2, and W3, which lead to the base side of the discharge lamp 1. The fan 28 disposed near the discharge lamp being provided for exhausting the cooling air.

Id. at 231–32. The patentee responded with:

Fuse does not disclose or suggest a projector including a sirocco fan that exhausts cooling air to the base side of a light source lamp so as to intensively cool the base side of the light source lamp, as recited in claim 1.

Instead, Fig. 1 of Fuse discloses air W3 taken in by fan 63 so as to cool the base side of the light source lamp after cooling three light valves. That is, the air W3 does not intensively cool the base side of the light source lamp because some of the air W3 is first used to cool the three light valves. In contrast, as discussed in the specification at page 12, line 3, the first sirocco fan 52 of the present invention is used so as to intensively cool the base side of the light source lamp. The cooling air in the claimed invention is exhausted directly to the base side of the light source lamp.

Id. at 262. The patent office then granted the ‘004 patent. The patentee specifically distinguishes Fuse by explaining that the claimed invention exhausts air directly to the base of the lamp without cooling any other components prior to cooling the base of the lamp. Thus, in the applicant’s own words, the sirocco fan was intended to blow cooling air directly on to the base side of the lamp. Indeed, the patent examiner stated that claims 1–8 were allowed because “[a] projector including a sirocco fan for directing air onto the base of a light source, along with the rest of the structure and function of these claims, is not found in the prior art.” Id. at 295.

Seiko attempts to distinguish Fuse by arguing that the prior art reference dealt with an intake sirocco fan, not an exhaust fan. This does not change the fact that the relevant air stream was nevertheless being used to cool the outside of the reflector. Seiko’s contention that nothing in the prosecution history suggests the direction from which the sirocco fan must impinge on the base side of the lamp is correct; however, the applicant’s statements to the Patent Office do require, independent of the location of the sirocco fan, that the fan’s air be blown on to the base side of the source lamp without attempting to cool other component parts of the projector. In essence, the applicant’s statement to the Patent Office distinguishing the prior art through the preferred embodiment limits the broad scope of the claim language.

In light of the above discussion, the court is convinced that the air being blown by the sirocco fan must be blown at the base of the lamp. Therefore, the court construes “intensively cool the base

side of the light-source lamp” to be “direct all or substantially all of the air flow to cool the side of the light source lamp opposite to the side from which light emerges.”¹¹


CONCLUSION

For the foregoing reasons, the court construes the disputed terms as follows:

Term	Construction
“second exhaust fan”	“fan, in addition to one other fan somewhere else in the projector, at the end of the cooling path for drawing air out of the projector”
“the air duct is in a closed status and is positioned adjacent to the periphery of the light source to concentrate the direction of exhausted air”	No construction necessary.
“guiding surface”	No construction necessary.
“ventilating path provided inside the power unit for circulating cooling air”	“a route in the power unit along which at least some fresh air moves while cooling the power unit, the power unit being the portion of the projector that comprises components that convert and regulate electrical power for use in the projector”
“directly conducts cooling air”	“transmits cooling air without reducing its temperature to that of the air inside the outer casing of the projector”
“duct connecting said second cooling intake port and the air inlet”	“structure that limits the direction of airflow between the intake port on the outer case and an opening leading to a ventilating path of the power unit so as to form an airflow passage”
“intensively cool the base side of the light-source lamp”	“direct all or substantially all of the air flow to cool the side of the light source lamp opposite to the side from which light emerges”

IT IS SO ORDERED.

Dated: May 16, 2008


 MARILYN HALL PATEL
 United States District Court Judge
 Northern District of California

ENDNOTES

1. On April 21, 2008 Seiko withdrew its assertions based on the '324 patent. See Docket No. 172.

2. Furthermore, in the office action of November 4, 2003, the Patent and Trademark Office examiner indicated that his willingness to allow claims was "based on the assumption that there actually is a first fan in the system which Applicant inadvertently left out in claim 1." Utermohlen Dec., Exh. A (hereinafter "Joint Appendix") at 482. In response to that office action, the applicant made no change to the "second exhaust fan" language and indicated no disagreement with the examiner's understanding that a first fan was implicit in claim 1. See id. at 501–03. Although not determinative, the court does consider the applicant's silence in response to the examiner's statements.

3. Since the intrinsic evidence clearly demonstrates the location of the second exhaust fan in these claims, the court finds no reason to rely on extrinsic evidence in the form of statements made by Nien-Hui Hsu, an inventor of the '831 patent.

4. Seiko argues that Coretronic did not state a construction for this term when the parties exchanged proposed claim constructions and therefore Coretronic should be barred from advancing a construction at this time. However, Coretronic is merely arguing against Seiko's proposed construction by proposing that the plain and ordinary meaning of the phrase be used. Since Coretronic is not advancing an alternate construction, Seiko's objection is overruled.

5. In light of this analysis, the court finds it unnecessary to refer to the prosecution of related patents in Japan.

6. Seiko argues that the guiding surface must be related to an air flow. Indeed, the guiding surface is designed to guide air in a particular direction. The context of the limitations in the claims, and the patent as a whole, make it clear that the guiding surface guides an air flow. See '899 patent at 3:45–47, 1:65–2:18. Consequently, adding this limitation into the construction is unnecessary.

7. The '158 patent also discloses ventilating paths in the *optical lens* unit that are not enclosed. See '158 patent at 14:12–19.

8. The court has replaced the word "includes" in Seiko's proposed construction with the word "comprises" since the power unit limitation connotes some set of cohesive components.

9. The '831 patent avoids this issue by using the phrase "closed status" to indicate an enclosed duct.

10. According to the patent, use of an enclosed duct also removes the possibility that airborne debris will damage the optical lens unit. Nevertheless, the patent nowhere requires an enclosed duct. Indeed, the debris problem, which seems to only apply to the optical lens unit, see, e.g., '831 patent, Fig. 8, can also be solved by removing or screening the debris when the air is initially inserted into the projector.

11. The court finds no reason to insert the "outside of a reflector" language suggested by Coretronic.